

IN THE CLAIMS:

All of the pending claims 9 and 10 are set forth below. The status of each claim is indicated with one of (cancelled) or (currently amended). Please AMEND claims 9 and 10 in accordance with the following:

1-8. (cancelled)

9. (currently amended) A transmission system performing optical transmission, comprising:

a first repeater and a second repeater,

wherein the first repeater includes a first light source, a first modulation control part, a first splitter, a first optical amplifier amplifying a first optical main signal, a first Raman amplifier and a first fault occurrence recognizing part,

wherein the second repeater includes a second light source, a second modulation control part, a second splitter, a second optical amplifier amplifying a second optical main signal, a second Raman amplifier and a second fault occurrence recognizing part,

wherein the first and second repeaters are optically connected by a first optical transmission line transmitting the first optical main signal and a first optical supervisory channel signal from the first repeater to the second repeater, the first optical supervisory channel signal being which is produced by modulating a first light signal of a wavelength emitted from the first light source, from the first repeater to the second repeater, and

wherein the first and second repeaters are optically connected by a second optical transmission line transmitting a second optical main signal and a second optical supervisory channel signal from the second repeater to the first repeater, the second optical supervisory channel signal being which is produced by modulating a second light signal of a wavelength emitted from the second light source from the second repeater to the first repeater,

wherein the first Raman amplifier emits a first Raman pump light into the second optical transmission line in the opposite direction to that of the second optical main signal and the second optical supervisory channel signal, so that the second optical main signal and the second optical supervisory channel signal are amplified,

wherein the second Raman amplifier emits a second Raman pump light into the first optical transmission line in the opposite direction to that of the first optical main signal and the first optical supervisory channel signal, so that the first optical main signal and the first optical supervisory channel signal are amplified,

wherein the first light signal is separated into a first optical supervisory signal by the first splitter which is provided between the first light source and the first modulation control part,

wherein the second light signal is separated into a second optical supervisory signal by the second splitter which is provided between a second light source and the second modulation control part,

wherein the first ~~second~~-repeater transmits the first optical supervisory signal to the ~~second~~ first-repeater along the second ~~first~~-optical transmission line,

wherein the second ~~first~~-repeater transmits the second optical supervisory signal to the ~~first~~ second-repeater along the first ~~second~~-optical transmission line,

wherein, when the first fault occurrence recognizing part recognizes a level of the second Raman pump light below a predetermined threshold level of the second Raman pump light, the first fault occurrence recognizing part prevents only the first amplifier from amplifying the first optical main signal,

wherein, if the second Raman amplifier becomes faulty, and ~~when~~ the first fault occurrence recognizing part recognizes a level of the second ~~first~~-optical supervisory signal below a predetermined threshold level of the second ~~first~~-optical supervisory signal, the fault occurrence recognizing part prevents only the first amplifier from amplifying the first optical main signal, and

wherein, when the second fault occurrence recognizing part recognize a level of the first Raman pump light below a predetermined threshold level of the first Raman pump light, the second fault occurrence recognizing part prevents only the second amplifier from amplifying the second optical main signal, and

wherein, if the first Raman amplifier becomes faulty, and ~~when~~ the second fault occurrence recognizing part recognizes a level of the first ~~second~~-optical supervisory signal below a predetermined threshold level of the first ~~second~~-optical supervisory signal, the second fault occurrence recognizing part prevents only the second amplifier from amplifying the second optical main signal.

10. (currently amended) A transmission system performing optical transmission, comprising:

a first repeater and a second repeater,

wherein the first and second repeaters are optically connected by a first optical transmission line transmitting a first optical main signal and a first optical supervisory channel signal from the first repeater to the second repeater, and a second optical transmission line

transmitting a second optical main signal and a second optical supervisory channel signal from the second repeater to the first repeater,

wherein the second repeater transmits the second optical supervisory channel signal serving as a second first-optical supervisory signal to the first repeater along the first optical transmission line,

wherein the first repeater transmits the first optical supervisory channel signal serving as a first second-optical supervisory signal to the second repeater along the second optical transmission line,

wherein the first repeater includes a first optical amplifier amplifying the first optical main signal, a first Raman amplifier and a first fault occurrence recognizing part,

wherein the second repeater includes a second optical amplifier amplifying the second optical main signal, a second Raman amplifier and a second fault occurrence recognizing part,

wherein the first Raman amplifier emits a first Raman pump light into the second optical transmission line in the opposite direction to that of the second optical main signal and the second optical supervisory channel signal, so that the second optical main signal and the second optical supervisory channel signal are amplified,

wherein the second Raman amplifier emits a second Raman pump light into the first optical transmission line in the opposite direction to that of the first optical main signal and the first optical supervisory channel signal, so that the first optical main signal and the first optical supervisory channel signal are amplified,

wherein, when the first fault occurrence recognizing part recognizes a level of the second Raman pump light below a predetermined threshold level of the second Raman pump light, the first fault occurrence recognizing part prevents only the first amplifier from amplifying the first optical main signal,

wherein, if the second Raman amplifier becomes faulty, and when the first fault occurrence recognizing part recognizes a level of the second first-optical supervisory signal below a predetermined threshold level of the second first-optical supervisory signal, the fault occurrence recognizing part prevents only the first amplifier from amplifying the first optical main signal, and

wherein, when the second fault occurrence recognizing part recognizes a level of the first Raman pump light below a predetermined threshold level of the first Raman pump light, the second fault occurrence recognizing part prevents only the second amplifier from amplifying the second optical main signal, and

wherein, if the first Raman amplifier becomes faulty, and when the second fault

occurrence recognizing part recognizes a level of the first ~~second~~-optical supervisory signal below a predetermined threshold level of the first ~~second~~-optical supervisory signal, the second fault occurrence recognizing part prevents only the second amplifier from amplifying the second optical main signal.